

## A

**Air-Sole units** - Those little bags are based on the following formula:  $Cu=U+CG$  (Cushioning equals urethane bags filled with compressed gas). Maybe it's not  $E=MC^2$ , but it will do more for your feet than Einstein ever did. It says that because the gas molecules are larger than the pores in the urethane membrane, air can't escape. The result is our light, protective cushioning.

**Anaerobic threshold (AT)** - That's when you are working so hard that your aerobic energy system can't feed all your body needs. Above that level, the lactate concentration in your blood increases dramatically. If that sounds like a bad thing, it is. For endurance athletes, too much lactic acid is a bogeyman. Blame it for those heavy legs. In fact, once that line is crossed, intense exercise can only be continued for a few minutes. An hour at most. The object of training is to increase your AT. That way your muscles can use oxygen at higher rates and scare the lactate bogeyman away. AT is sometimes referred to as lactic threshold.

## B

**BRS 1000** - A highly durable carbon rubber we invented for use in outsoles. BRS stands for Blue Ribbon Sports, which was our name before we came up with Nike. The tie-in? Both BRS and Nike last ... and last...

**Blow molding** - Used in Max Air cushioning, this process allows designers to make Air-Sole units in more shapes. Gas is injected through an external tube, forcing the plastic into the shape of a mold. You think it sounds dull here? You should see how it reads at the patent office.

## C

**Carbon fiber** - A material used in midsoles for support. It's stronger than steel, but lighter, which is another reason we don't make steel shoes.

**Clima-FIT** - Used to create apparel that's light, breathable and water-resistant. So don't let a little rain bother you. Ultra-fine filaments, densely packed, keep water droplets out while allowing excess heat and perspiration to escape.

**Closed-hole mesh** - A double-ply polyester knit fabric consisting of an open-hole mesh layer with a polyester layer behind to make it "closed" hole. The breathability of mesh without showing any skin.

**Contoured footbed** - Flat feet are so unusual they can keep you out of the army. So a footbed that follows the contours of the foot not only makes sense; it makes sure you can be all you can be.

**Contoured hem** - Usually found on jackets, it's a bottom hem that makes a gradual transition from high in the front of the garment to lower in the back, allowing you to cover your ... well, you get the idea.

**CR** - Course record of course. Did you think it was cardio resuscitation, hold the pulmonary?

**Cool-down** - It's advisable to finish your workout with slow running or jogging to loosen muscles and get rid of lactic acid. It's also advisable to cool down before responding to what you think is an unfair request from your boss.

**Crash pad** - Back in the day this was where you'd fall out after an out-of-town Pink Floyd concert. Today we mean a stand-alone pad on the heel of your running shoes that minimizes impact pressure.

**Cushioning** - Think impact protection. Think softer landings. Think Nike Air. We were the patriarchs of pillow-like cushioning in the heel and forefoot alike. And with new technologies like Nike Shox, the softer hits just keep on comin'.

## D

**DOMS** - Delayed onset muscle soreness is quite common especially if you aren't use to using those particular muscles. For example, no amount of running can prepare you for the pain in the butt biking can be. DOMS is also quite common after particularly intense runs. The bad news is that worst discomfort generally lasts for two days. The good news is that it subsides over the next few.

**Dri-FIT** - It's spelled Dri, but it's pronounced "dry." Get it? And dry is what it will keep you. One layer of this moisture-managing material moves perspiration away from the body while a second layer delivers the moisture to the surface of the garment, where it can easily evaporate.

**Dual-density polyurethane/Phylon** - Simpler than it sounds. Midsoles that are harder where you need them to be (that's the polyurethane part), softer and lighter where you don't (that's the Phylon).

**Dual-pressure Max Air** - Lower pressure = softer cushioning. Higher pressure = more stability. Lower pressure = crash pad. Higher pressure = medial heel. A+B=C. Put 'em together and you've got a great ride.

## E

**Encapsulated Air-Sole unit** - Encapsu... what? Just remember that just because you can't see the Air-Sole unit, it doesn't mean it's not there.

**Engineered for women** - It's what it says it is. Because we know women's feet are different from men's, we engineer shoes taking that into consideration.

## F

**Fartlek** - Stop giggling. In spite of what you think, fartlek is Swedish for "speed play" and describes a workout that mixes slow and moderate running with short, fast bursts. Variable-pace running. Get it? Generally it's a little more free form than intervals training

**Flatseam construction** - A sewing process that produces a flat-stitched surface instead of the traditional, rough, rounded seam of most garments. So any visible bumps are your own.

**Flex grooves** - We're not talking product from that record company in England's northern regions. They're actually channels strategically placed to help your foot flex while you run.

**Footbridge** - A device we use in shoes to help slow the rate of pronation. It is inserted between the upper and the midsole. You never know it's there, except when you think of how good your stride is.

**Forefoot Air-Sole unit** - Nike-Air cushioning placed in the forward part of the shoe. It keeps you on your toes longer.

## I

**Interlocking PU/Phylon midsole** - Less geeky than it sounds. Merely a combination midsole that gives you the best of both worlds. Firm PU in the heel provides a good base for those uneven trails. Phylon (Nike's own EVA material) from the midfoot to the toe supplies lightweight cushioning. Less filling. Rides great.

**Internal six-spike forefoot plate** - OK, we're getting a little specific here. A traction plate in which the spike mounts are imbedded in the outsole of the shoe, so you won't get imbedded in a wet and sloppy cross-country course.

**Intervals training** - Fast repetitions of say 200 to 800 meters followed by slow recovery jogs. These are often very rigid workouts, e.g., eight 200s (eight sprints followed by eight jogs over the same distance) meant to build endurance and speed. Not for the undisciplined or for the weekend jogger.

## L

**Lactic acid** - Incomplete glucose breakdown leads to the formation of lactic acid in the muscles. Lactic acid is associated with soreness and muscle fatigue. See "anaerobic threshold".

**Large-volume Air-Sole unit** - Say it loud: a running shoe is only as good as the amount of impact protection it provides. This unit provides ample protection without weighing down the shoe. Firm enough to protect the heel and still compress to provide awesome cushioning.

**Last** - When we talk about a last, we are talking about what comes first. That's because the last is the device over which the shoe is first formed. There are three basic lasting shapes, straight, curved and semi-curved. Nike has pioneered this concept in order to take into account the structure and dynamics of your foot. The result is that you get shoes that are more comfortable and stable.

**Lateral** - A backward pass on the gridiron? Maybe, but not in this case. Lateral means outside, as in lateral meniscus, part of the knee cartilage that you often find out about only when you damage it. Nike refers to the outer edge of a shoe as the lateral edge.

## M

**Max Air cushioning** - It's just what it sounds like: maximum cushioning. Through blow-molding, more pressurized gas can be put inside even bigger air bags. The bigger the Air-Sole unit, the less traditional cushioning material is needed. More cushioning, less weight. You do the math.

**Maximum heart rate** - This simply refers to a target number of heartbeats per minute during exercise. To calculate your maximum target rate, just subtract your age from 220. Be careful though. That's 100% of max. At that level you're overstressing your ticker! The goal is 55% to 85% of maximum (consult your physician on this). How do you find the number of beats you are actually hitting? Easy. Take your pulse for 10 seconds during your workout and multiply by six. It might be easier to use our calculator for all of this. If not, you will need a No. 2 pencil or something to write with. And keep your eyes on your own paper!

**Medial** - Medial means mean. As in statistics. Only in this context we are talking about the inner side, as in an injury to the medial meniscus, typified among other things by pain on the inside of the knee during and/or after exercise. It could also be a reference to the arch side of a shoe, e.g., "The dual-density, medial-side Phylon found in Air Structure Triax slows pronation."

**Medial post** - Material placed on the medial side of a shoe to combat pronation.

**Mesh** - An open-textured fabric, knitted or woven ... blah, blah, blah. For our purposes, if it's got visible holes in it, it's mesh.

**Microfiber** - A fabric that uses tiny little filaments to produce cool effects, literally. Its ability to absorb and disperse moisture quickly is the key to Dri-FIT and other high-performance, high-comfort technology.

**Midfoot support system** - Any system - internal, midsole or outsole - designed to enhance stability in the midfoot area. Vague enough for ya?

**Midsole** - Like you've probably guessed, it's the part of the shoe located between the upper and the outsole. It provides the bed your foot rests in, houses Air-Sole units and provides cushioning and support. Think of it as the meat of the sandwich, unless of course, you're vegetarian.

**Mile** - Sometimes called the Imperial mile, after the British monarchs, though we can't remember the last time one of them ran it in under 5:30. It is 5280 feet, or 1760 yards (Though in Ireland, 2240 yards was considered a mile well into the 20th Century). This is not a "metric mile" which, at 1500 meters, is quite a bit shorter than the 1609.34 meters of a "real" mile. If you think that's confusing, horses are measured in hands, three to a foot.

**Motion control** - Houdini used things like handcuffs, leg irons and straightjackets as motion control devices. No need to go that far. Here, we're talking about the ability of a shoe to control and limit the natural roll of your foot. Shoes equipped with good motion control are particularly helpful for runners with an unusually high degree of pronation or supination. The best of these shoes provide control while limiting extra weight and bulk.

## N

**NSRL (Nike Sports Research Lab)** - Cool place. Lots of biomechanical research stuff. Athletes hang there, but we put them to work, studying them and then coming up with ways to make the perfect shoe for what they do.

**Negative splits** - This is the name given to a run in which the second half is faster than the first. Watching extremely flexible dancers hit the floor with both legs splayed, especially if you are a man, may make you think you've witnessed a negative split, but you probably haven't.

**Nike Waffle pattern** - What's cooking? How about a revolutionary outsole pattern invented by Nike co-founder Bill Bowerman on his waffle iron? We now offer a full-size pattern, as well as, a low-fat mini-waffle. Talk about your breakfast of champions.

**Nike-FIT (Functional Innovative Technology)** - Nike makes apparel out of Dri-FIT, Therma-FIT, Clima-FIT and Storm-FIT fabrics; all to allow athletes to perform under adverse weather conditions. In other words, "It's too hot," or, "It's raining," is no longer an excuse to bag your workout.

## O

**Open-weave mesh** - A lightweight, breathable material used in the upper that provides a consistent, resilient fit.

**Outsole** - The bottom, outside of the shoe. It gets dirty, it gets abused, and it still provides traction and durable protection. The king of sole, the outsole might just be the hardest working thing in shoe business.

**Overpronation** - Excessive inward roll of the foot. Overpronation is believed to be the cause of many running injuries.

## P

**PU coating** - Polyurethane is applied like a foam to fabric to give it water-resistant properties. The foam laminate contains air pockets, which enable the fabric to maintain breathability.

**Phylon** - Originally used in dolls, it is a heated and compressed EVA foam cushioning compound that is light, resilient and capable of giving a soft, smooth ride. As a bonus, it is non-yellowing and impervious to attack from water and microbials. What kind of dolls were they?

**Pick-ups** - Picking up the pace during a run. A pick-up is not as structured as a fartlek or continued for as extended a period of time. Pick-ups spice up what might otherwise be a ho-hum run. Without the hyphen they spice up a monster truck event or a Friday night at a local watering hole.

**Polyurethane (PU)** - A durable material used in midsoles and other components to help produce stability and a firm ride.

**Post (or medial post)** - Firmer density of midsole material added to the inner side of the shoe. A post is designed to reduce overpronation. Placing a fence post inside your shoe is not recommended.

**Pronation** - When the heel hits the ground, pronation begins as the foot rolls inward. Within limits, it is a normal motion necessary for walking or running. Like most things, overdoing it (overpronation) can lead to problems.

## Q

**QD-15 last** - Sounds like a chess move, but the tech guys assure us it's a hybrid last made from the heel of one last and the forefoot of another, resulting in a new last that provides a great fit in running shoes.

## R

**Repeats** - Uh, doing something over and over. This is not rocket science. For more information see "intervals training".

**Ride** - Transferring weight smoothly from heel to toe. If your shoe has got a good ride, you know it. If it doesn't, you know it even more. Hitching a ride during a run is different and just sort of defeats the purpose, don't you think?

**Runner's high** - "There's more to running than meets the pavement," as Sherlock Holmes once said. When the endorphins start to kick in, there a feeling of euphoria that you just don't get anywhere else.

**Running economy** - This does not in fact refer to how much the running demographic spends on entrance fees. It actually refers to the amount of oxygen used when running. Improving your economy means increasing your percentage of maximum O2 usage. That means you are using oxygen better and therefore puffing less.

**Running shoe last** - A last specifically designed for the footstrike characteristics of the running motion.

## S

**Sculpted Phylon** - Phylon carved or sculpted, as opposed to molded, to a particular shape. Used primarily in midsoles.

**Seamless upper** – Like it sounds, it's an upper made of a single piece to increase stability and/or reduce seam abrasion.

**Sockliner** - We know you know what this is. We just want to be sure you know all of what it does: provide even more cushioning. A liner under the foot can add comfort and protection from blisters.

**Stability** - When it comes to running shoes, stability refers to the fit of the upper. A more stable shoe has a sturdier, more supportive upper and therefore keeps your foot in place during a neutral stride. A lot of runners confuse stability with Motion Control because of their supportive properties. The key difference is their place on the shoe - Stability is stride guidance in the upper, while Motion Control is pronation prevention on the medial (inside) edge of the shoe's midsole/outsole.

**Storm-FIT** - It might be wet and cold outside, but if you're playing hard enough you are still going to sweat. Since wet, cold and sweaty sounds like the three least popular dwarfs or the title of a bad '70s cop show, we came up with a way to eliminate all three. A unique two- or three-layer construction, Storm-FIT uses Gore-Tex laminates to produce a waterproof, windproof and breathable fabric by using ultrafine microfibers that let perspiration vapors out without letting the elements in.

**Strides** - Strides are used in training and to warm up before a race. They are short, fast but controlled runs of 50 to 150 meters to build speed and efficiency. Obviously this is not the same as when Mrs. Miller, my third grade teacher, told my mom that I was making great strides in learning to behave.

**Supination** - When the foot rolls outward at toe-off, that's supination. If your foot remains on the outside edge instead of pronating, that's oversupination. If you do not pronate at all, you are not absorbing shock. That occurs in less than 1% of the population, so it's probably not you.

## T

**TPU** - Thermoplastic Urethane. It can be fine-tuned for optimal stiffness and is used to make stabilizing plates.

**Taper** - Cutting back mileage before a race. Depending on the distance, runners usually begin tapering between one day and three weeks before a race. This helps you get peak performance from rested muscles on race day. Taper at Grateful Dead shows meant something completely different.

**Target heart rate** - In order to get the most out of aerobic exercise, you should know the target range of beats per minute you want to get the ticker cranking. Keeping your pulse below that range probably isn't doing enough. Exceeding that range is going too far and may be fatal.

**Tempo runs** - Training exercises for a drummer? Not in this case. These are 20-to- 30-minute training runs that maintain a pace just under (by 10 seconds or so) your 10K race pace. If you aren't much of a clock watcher, think of it as faster than your easy pace but not as fast as intervals training.

**Therma-FIT** - A light, thin microfleece material with exceptional thermal properties. Air pockets in the fleece create reservoirs where body heat is stored and drawn on in cold environments. Now when temperatures drop, workouts don't have to.

**Threshold runs** - You know how sometimes you've just reached the end of your rope and you want to rush out of the room screaming? That's not a threshold run. When you run at or near your anaerobic threshold...you got it. That's a threshold run. Exercise physiologists believe that running near that threshold actually raises the threshold over time, allowing you to run faster in the future.

**Toebox** - Nope. Sorry. It's not a technique practiced in savate, the French art of kickboxing. The front of a shoe's upper where the toes have room to roam is the toebox.

**Tuned Air** - Newton said that for every action there's an equal and opposite reaction. We weren't about to argue. Instead, we copped his idea and used it to make a supremely versatile and customizable cushioning system.

**Tuned Hemispheres** - Picture a superball cut in half. Now picture the two pieces placed together like two bowls facing opposite directions. Then imagine the resistance you'd get when you tried to compress them. Lastly, imagine being able to place those hemispheres wherever you needed them on an outsole to fine-tune your resistance and cushioning. That's the secret to Nike Tuned Air.

**Two-piece outsole** - If you guessed this is an outsole design that uses two pieces of carbon rubber instead of one full-length piece, well, congratulations. If you guessed it provides lightweight flexibility while continuing to give durability, you've got a bright future ahead of you.

## U

**Upper** - We don't think you're really looking for the upper on the bottom of the shoe, but just as a formality we'll tell you that you'll find it at the top part of the shoe. You know, the part with all the colors, laces and Swooshes. The upper not only grips your foot and provides comfortable support, but we also tend to make them look really good.

## V

**Variable-width lacing system** - All size-10 feet are not created equal. Variable width lacing allows you to customize your fit simply by choosing which eyelets you put the laces through. Why didn't I think of that?

**Visible Air-Sole unit** - Some people just won't believe something is working unless they see it with their own eyes. So for the skeptics out there, we put our Air-Sole units out in plain sight.

**Visible Zoom Air** - A vacuum-formed polyurethane bag houses densely packed fibers. The fibers, combined with Nike Air, act as little springs. The result is low-to-the-ground, hyper-responsive speed cushioning you can feel. And it does it in less space than other Air-Sole units.

## W

**Waffle outsole** - The Nike design that started it all. It looks like a waffle, er, because it was invented in Bill Bowerman's waffle iron (don't try this at home) and because it provides excellent traction in all kinds of weather.

**Warm-up** - It's a personal thing but we don't recommend warming up your pre-race pasta by rubbing it between your hands. We do recommend five to twenty minutes of easy jogging/walking as a warm-up before a race or a workout. The point is to loosen up a little by getting the blood pump working a little.

**Weight** - Our co-founder Bill Bowerman was obsessed with weight. He felt every extra ounce on a shoe was 55 lbs. a runner had to carry over the course of a mile. So from the outset, it's been our goal to carve out weight in any way possible, without sacrificing performance. A waffle outsole here, a heel clef there. But some performance attributes require the use of special materials that are a little heavier. So lighter isn't always better.

**Width** - Human feet are like snowflakes. Some are nice and narrow and others are wider than the Mississippi.

And we recognize that. So we've made several running shoes available in extra widths. If you return to our Shoe Filter within the GEAR section and select "Wide" or "Narrow" under the WIDTH column, it'll be abundantly clear which models we're talking about.

**Women's-specific design** - Women come in every shape and size. More, in fact, than Nike can design products for. But we can see the obvious: Downsized men's apparel won't cut it. Women have narrower shoulders and arms, less height and a distinct aversion to shoulder seams down to the elbows or peek-a-boo sleeves. We build the apparel to match.

**Women's-specific last** - Most women's feet are slightly narrower in the heel and toe than most men's feet. Women's arches also tend to be higher and closer to the heel. It made sense to build a last to reflect that difference. So we did.

**Women's-specific sockliner** - A sockliner is a removable cushion inside a Nike shoe. A women's sockliner is specifically designed to mirror the unique contours of a woman's foot. Slightly narrower in the heel and higher in the arch, it provides a closer fit and more comfortable support.

**World best** - Recording the best time ever in an event in which world records are not kept formally gives you a world best rather than a world record. So when you woke up way late and still made it to that important meeting, you didn't do it in record time, you did it in best time.

## Z

**Zoom Air cushioning** - Two layers of nylon fabric, joined by densely packed fibers, are sealed inside polyurethane. The unit is inflated; pushing apart the fabric and creating tension on the fibers. What does that mean? I don't know, but the result is a low-to-the-ground, hyper-responsive speed cushioning you can feel. And it does it in less space than other Air-Sole units.

## #s

**10K pace** - Your 10K pace is just that, YOURS. While we all might like to be able to match Lornah Kiplagat's best in 2000 10K at 30:52 (that's just under a 5 minute mile average), your 10K pace should reflect reality a little bit better than that. Even when looking for a personal best, it's best to base it on actual times for your recent 10Ks. It's easy in kilometers. A 64-minute 10K is obviously 6.4 per (If you needed help with that, don't try crossing the street alone). With miles it's a little more difficult. A 10K is called 6.2 miles (though it's actual closer to 6.2136932) so either try to keep your time in multiples of 6.2 or turn your minutes into a fraction of 60.. Well you get the idea.

**5K/8K/10K** - K is for kilometers. Can you say kilometers? That's 1,000 meters. A meter is 39.37 inches so 1K is right between one half and three-quarters of a mile (.62). A 5K is 3.1 miles. 8K are 4.96. 10 = 6.2; and so on.

**400 meters** - A quarter mile, one 1 lap around a standard track to you, and not nearly enough of a workout, so get back out there and run a few more.